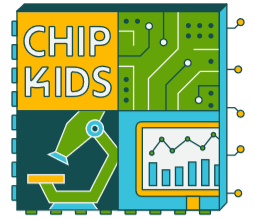


Feed the Robot

Code Blocks



put 2 tbsp batter on griddle

all ingredients = mixed

wait 1 minute

repeat until

flip an unflipped pancake

all pancakes = flipped

put milk, butter, egg in bowl

whisk ingredients in bowl

repeat until

put oil on griddle

turn on griddle to medium

repeat 3 times

put all pancakes on plate

serve all pancakes

whisk ingredients in bowl

wait 2 minutes

milk, butter, egg = mixed

put flour, baking powder, sugar, salt in bowl

repeat until

NAME: _____



Feed the Robot: Instructions

An **algorithm** is a series of specific instructions that a person or computer can follow to perform a task— just like a recipe! Today, we're going to take a pancake recipe and turn it into **code** by combining small code blocks, each consisting of an action or logical condition. These are the four categories of code blocks:

- Dark blue: put something in/on another thing (e.g. "put 2 tbsp batter on griddle")
- Light blue: take a specific action (e.g. "flip an unflipped pancake")
- Yellow: keep doing/looping the code block inside it until a certain condition is met (e.g. "repeat until ____")
- Green: a logical condition to determine whether to continue or stop a certain loop (e.g. "all ingredients = mixed")

Now, read the recipe on the right carefully, familiarizing yourself with each of the steps. After you've read through the recipe, use a pair of scissors to cut out all of the code blocks and see if you can match them up with the steps below. Then, carefully place the code blocks in order; imagine that a computer will be executing your code, and if you have an error (or "bug") in your code, the pancakes it makes may not taste good. Once you have the blocks in order, tape them together and compare your code with the rest of the class!

INGREDIENTS:

- 1 cup all-purpose flour
- 2 tablespoons sugar
- 2 teaspoons baking powder
- $\frac{1}{2}$ teaspoon salt
- 1 cup milk
- 2 tablespoons unsalted butter, melted
- 1 large egg
- 1 tablespoon vegetable oil

STEPS:

1. Mix wet ingredients:
 - In a medium bowl, whisk together milk, butter, and egg.
2. Add dry ingredients and mix:
 - Add flour, sugar, baking powder, and salt to milk mixture; whisk until just moistened. (Do not overmix; a few small lumps are fine.)
3. Heat and oil griddle:
 - Heat an electric griddle over medium. Fold a sheet of paper towel in half and moisten with oil; carefully rub griddle with oiled paper towel.
4. Spoon batter onto skillet or griddle:
 - For each pancake, spoon 2 to 3 tablespoons of batter onto skillet, using the back of the spoon to spread batter into a round (you should be able to fit 3 in a large skillet).
5. Cook first side:
 - Cook until surface of pancakes have some bubbles and a few have burst (around 2 minutes).
6. Flip pancakes:
 - Flip all pancakes carefully with a thin spatula, and cook until browned on the underside (around 1 minute).
7. Serve pancakes:
 - Transfer all 3 pancakes from the griddle to a plate. Serve and enjoy!

Feed the Robot

Answer Key

